

AMENDMENTS TO THE CLAIMS

Claims 1-6 (Canceled).

Claim 7 (Currently Amended): ~~An~~ A dental treatment method comprising:
applying an antibacterial composition ~~comprising to teeth and curing or polymerizing~~
said composition;

wherein said antibacterial composition comprises:

- (a) at least one antibacterial salt compound,
- (b) at least one acid group-having polymerizable monomer,
- (c) at least one hydrophilic polymerizable monomer,
- (d) water, and
- (e) at least one basic compound selected from the group consisting of an alkali metal hydroxide, a strong basic acid salt not having an aromatic group, and primary, secondary or tertiary aliphatic amine;

wherein the tertiary amine is selected from the group consisting of trimethylamine, triethylamine, N-ethyldiethanolamine, N-n-butyldiethanolamine, N-lauryldiethanolamine, triethanolamine, N-methyldiethanolamine dimethacrylate, triethanolamine dimethacrylate, triethanolamine trimethacrylate and mixtures thereof.

Claim 8 (Currently Amended): The ~~antibacterial composition~~ method of Claim 7,
wherein the antibacterial salt compound (a) is an antibacterial pyridinium salt compound.

Claim 9 (Currently Amended): The ~~antibacterial composition~~ method of Claim 7, wherein the antibacterial salt compound (a) is a polymerizable group-having antibacterial salt compound.

Claim 10 (Currently Amended): The ~~antibacterial composition~~ method of Claim 7, wherein the antibacterial salt compound (a) is an antibacterial pyridinium salt compound having a polymerizable group.

Claim 11 (Currently Amended): The ~~antibacterial composition~~ method of Claim 7, wherein (e) is at least one alkali metal hydroxide.

Claim 12 (Currently Amended): The ~~antibacterial composition~~ method of Claim 7, wherein (e) is lithium hydroxide, potassium hydroxide or sodium hydroxide.

Claim 13 (Currently Amended): The ~~antibacterial composition~~ method of Claim 7, wherein (e) is at least one strong basic acid salt not having an aromatic group.

Claim 14 (Currently Amended): The ~~antibacterial composition~~ method of Claim 7, wherein (e) is lithium carbonate, sodium carbonate, potassium carbonate, lithium hydrogencarbonate, potassium hydrogencarbonate, sodium hydrogencarbonate, sodium formate, sodium hydrogen oxalate, sodium acetate, potassium acetate, sodium propionate, sodium borate, sodium dihydrogenphosphite, potassium dihydrogenphosphite, sodium dihydrogenphosphate, potassium dihydrogenphosphate, disodium hydrogenphosphate, or dipotassium hydrogenphosphate.

Claim 15 (Currently Amended): The ~~antibacterial composition~~ method of Claim 7, wherein (e) is at least one primary, secondary or tertiary aliphatic amine;

wherein the tertiary amine is selected from the group consisting of trimethylamine, triethylamine, N-ethyldiethanolamine, N-n-butyldiethanolamine, N-lauryldiethanolamine, triethanolamine, N-methyldiethanolamine dimethacrylate, triethanolamine dimethacrylate, triethanolamine trimethacrylate and mixtures thereof.

Claim 16 (Currently Amended): The ~~antibacterial composition~~ method of Claim 7, wherein (e) is at least one primary aliphatic amine.

Claim 17 (Currently Amended): The ~~antibacterial composition~~ method of Claim 7, wherein (e) is at least one secondary aliphatic amine.

Claim 18 (Currently Amended): The ~~antibacterial composition~~ method of Claim 7, wherein (e) is at least one tertiary aliphatic amine selected from the group consisting of trimethylamine, triethylamine, N-ethyldiethanolamine, N-n-butyldiethanolamine, N-lauryldiethanolamine, and triethanolamine.

Claim 19 (Currently Amended): The ~~antibacterial composition~~ method of Claim 7, wherein (e) is at least one compound selected from the group consisting of N-methyldiethanolamine dimethacrylate, triethanolamine dimethacrylate, and triethanolamine trimethacrylate.

Claim 20 (Canceled).

Claim 21 (Currently Amended): The ~~antibacterial composition~~ method of Claim 7, ~~which~~ wherein said composition further comprises (f) a polymerization initiator.

Claim 22-24 (Canceled)

Claim 25 (Currently Amended): The ~~composition~~ method of Claim 7, wherein said composition does not visibly discolor when stored at 50°C for one month.

Claim 26 (Currently Amended): The ~~composition~~ method of Claim 7, ~~which~~ wherein said composition has an adhesiveness to bovine dentin of at least about 15 MPa.

Claim 27 (Canceled)

Claim 28 (Currently Amended): A dental treatment method comprising:
applying ~~the~~ an antibacterial composition ~~of Claim 7~~ to a dental bonding material or to a dental restorative material and curing or polymerizing said composition;

wherein said antibacterial composition comprises:

- (a) at least one antibacterial salt compound,
- (b) at least one acid group-having polymerizable monomer,
- (c) at least one hydrophilic polymerizable monomer,
- (d) water, and

(e) at least one basic compound selected from the group consisting of an alkali metal hydroxide, a strong basic acid salt not having an aromatic group, and primary, secondary or tertiary aliphatic amine;

wherein the tertiary amine is selected from the group consisting of trimethylamine, triethylamine, N-ethyldiethanolamine, N-n-butyldiethanolamine, N-lauryldiethanolamine, triethanolamine, N-methyldiethanolamine dimethacrylate, triethanolamine dimethacrylate, triethanolamine trimethacrylate and mixtures thereof.

Claim 29 (New): The method of Claim 28, wherein the antibacterial salt compound (a) is an antibacterial pyridinium salt compound.

Claim 30 (New): The method of Claim 28, wherein the antibacterial salt compound (a) is a polymerizable group-having antibacterial salt compound.

Claim 31 (New): The method of Claim 28, wherein the antibacterial salt compound (a) is an antibacterial pyridinium salt compound having a polymerizable group.

Claim 32 (New): The method of Claim 28, wherein (e) is at least one alkali metal hydroxide.

Claim 33 (New): The method of Claim 28, wherein (e) is lithium hydroxide, potassium hydroxide or sodium hydroxide.

Claim 34 (New): The method of Claim 28, wherein (e) is at least one strong basic acid salt not having an aromatic group.

Claim 35 (New): The method of Claim 28, wherein (e) is lithium carbonate, sodium carbonate, potassium carbonate, lithium hydrogencarbonate, potassium hydrogencarbonate, sodium hydrogencarbonate, sodium formate, sodium hydrogen oxalate, sodium acetate, potassium acetate, sodium propionate, sodium borate, sodium dihydrogenphosphite, potassium dihydrogenphosphite, sodium dihydrogenphosphate, potassium dihydrogenphosphate, disodium hydrogenphosphate, or dipotassium hydrogenphosphate.

Claim 36 (New): The method of Claim 28, wherein (e) is at least one primary, secondary or tertiary aliphatic amine;

wherein the tertiary amine is selected from the group consisting of trimethylamine, triethylamine, N-ethyldiethanolamine, N-n-butyldiethanolamine, N-lauryldiethanolamine, triethanolamine, N-methyldiethanolamine dimethacrylate, triethanolamine dimethacrylate, triethanolamine trimethacrylate and mixtures thereof.

Claim 37 (New): The method of Claim 28, wherein (e) is at least one primary aliphatic amine.

Claim 38 (New): The method of Claim 28, wherein (e) is at least one secondary aliphatic amine.

Claim 39 (New): The method of Claim 28, wherein (e) is at least one tertiary aliphatic amine selected from the group consisting of trimethylamine, triethylamine, N-ethyldiethanolamine, N-n-butyldiethanolamine, N-lauryldiethanolamine, and triethanolamine.

Claim 40 (New): The method of Claim 28, wherein (e) is at least one compound selected from the group consisting of N-methyldiethanolamine dimethacrylate, triethanolamine dimethacrylate, and triethanolamine trimethacrylate.

Claim 41 (New): The method of Claim 28, wherein said composition further comprises (f) a polymerization initiator.

Claim 42 (New): The method of Claim 28, wherein said composition does not visibly discolor when stored at 50°C for one month.

Claim 43 (New): The method of Claim 28, wherein said composition has an adhesiveness to bovine dentin of at least about 15 MPa.

SUPPORT FOR THE AMENDMENTS

Claims 1-6, 20, 22-24 were previously canceled.

Claim 27 is presently canceled.

Claims 7-19, 21, 25, 26, and 28 have been amended.

Claims 29-43 have been added.

Claim 7 has been amended to include the limitations of previously pending Claim 27.

Support for the amendment of Claim 7 is found on pages 1, 3 and 27 of the specification, as well as the examples. Similarly, Claim 28 has been amended to include the limitation of previously pending Claim 7. Support for the amendment of Claim 7 is found on pages 1, 3 and 27 of the specification, as well as the examples. Claims 8-19, 21, 25, and 26 have been amended to correct the preamble of the claim, thus ensure proper antecedent basis. In addition, new Claims 29-43 depend from amended Claim 28 and correspond to Claims 8-19, 21, 25, and 26. Support for the amendment of Claims 8-19, 21, 25, and 26 and new Claims 29-43 is provided by the claims as previously presented and the specification throughout, see for example, pages 4-29 of the specification and Tables 1-4 on pages 35, 38, 41 and 44.

No new matter has been added by the present amendments.